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BEFORE THE

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COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION
SUBCOMMITTEE ON DISASTER PREVENTION AND PREDICTION

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Good morning Chairman DeMint, Ranking Member Nelson, and distinguished members of the Subcommittee. I am Christopher Guttman-McCabe, Assistant Vice President for Homeland Security and Regulatory Policy at CTIA, The Wireless Association.™ CTIA is the international organization that represents all sectors of the wireless communications industry: wireless carriers, manufacturers, and data companies. I am privileged to appear before you today to discuss the wireless industry's efforts regarding creation of an all hazards network and what role Government can play in that effort.

The wireless industry recognizes the importance of this effort. CTIA and the industry have dedicated resources to examine this issue and are working towards an emergency alert capability. CTIA and the industry have coordinated their efforts with the Department of Homeland Security and the Federal Emergency Management Agency ("FEMA"), as well as with the Federal Communications Commission. As discussed below, the industry also recently launched a voluntary Wireless AMBER Alert Service that not only will help to protect our Nation's children, but also may provide a useful template as the industry moves forward with an Emergency Alert service. While the AMBER alert service differs from an

Emergency Alert service in that the AMBER Alerts are not necessarily initiated during a time of severe network congestions (as is likely the case in the context of an Emergency Alert), the industry already has begun to learn from the provision of this service.

Background

The wireless industry, like many other high-tech industries, is in a process of continual change and renewal. The wireless industry has invested billions of dollars in their networks. Additionally, consumers also have invested billions in handsets, wireless PDAs, and data cards. The industry runs on a mix of technologies varying from first generation analog to the latest third-generation designs. Manufacturers and service providers unveil new capabilities every few days. New technologies and services are likely to extend both the reach and capacity of wireless. Unfortunately, we do not know today what all those new capabilities will be or when they will become available. A sensible emergency alerting policy must take into account both the massive investment in place today -- an investment that defines the capabilities that can be used this year and next -- and the technological developments that propel the industry in the long run.

Developing a national emergency alerting policy should not be a one-time event. Going forward, there should be a continuing process for identifying the emergency alert environment, as well as industry capabilities. Uses and expectations of the service will indicate what may be appropriate for capacity of message delivery in the short term and long term. Further, the scope of who uses the system and for what purpose is very important to understand as it relates to the cost to develop, the management of the service, and effectiveness of the system.

CTIA, working with the industry, has initiated a two-part approach toward development of an Emergency Alert capability. The goal is to balance the industry's existing capabilities with the perceived

requirements of an Emergency Alert service, at the same time recognizing that the industry is evolving. The continued evolution of the industry likely will result in different options being considered for delivery of Emergency Alert messages. For example, currently there is nothing deployed in the network for delivering messages to a specific targeted geographic area. Handsets and/or networks would have to be upgraded or replaced in order to provide such a service, and development and deployment of any geographic service would take time.

Accordingly, CTIA and the industry are initially working within existing capabilities to establish and initiate a voluntary effort to deliver Presidential-level Emergency Alert messages via Short Message Service ("SMS"), or text message, to those subscribers that opt in to a participating carrier. As discussed below, CTIA and the wireless industry are partnering with FEMA on a pilot project that initially will utilize the industry's existing SMS, or text message, capabilities. The SMS capability exists in the majority of handsets, and is provided by the overwhelming majority of carriers.

While there are both limitations on the number of SMS messages that can be sent during any one period of time, as well as limitations on the number of characters that can be contained in any single message, there is one significant benefit to the short-term use of SMS – it is available today. Utilizing SMS initially will work to avoid a significant amount of the development timeframe that will accompany the solutions discussed below. However, this initial service must be approached with caution, as the limitations and concerns regarding both capacity and message content are likely to arise during an emergency.

Unlike the existing Emergency Alert network, which operates on broadcast networks designed to transmit messages from one point to multiple points, the existing wireless network was designed to be point to point – one customer to another customer, where the network has to route calls and text messages using switches and databases to direct traffic to individual users. In this environment, utilization of SMS

to retransmit messages likely will result in latency of delivery of the message to consumers. However, as was concluded in the Wireless AMBER Alert context, an SMS offering – despite its expected limitations – is the best existing, short-term option for delivery of alert messages.

Second, as part of the longer term effort going forward, CTIA and the industry are investigating mechanisms for geographic delivery of messages. This second stage effort is designed to take advantage of the constant evolution that is the hallmark of the wireless industry. The goal is to address the capacity issues that are part of any SMS-based alert service, as well as to develop a capability for targeting messages geographically. The capability to deliver messages geographically currently does not exist in wireless networks in the United States. Wireless service is based on point-to-point communications, and has not been designed for point-to-multipoint broadcast.

The industry is looking into what role, if any, services such as cell broadcast could ultimately play in the Emergency Alert environment. Additionally, the industry is investigating whether the existing National Oceanic & Atmospheric Administration (NOAA) service can be incorporated into a wireless phone, as well as whether SMS messages can be targeted geographically. Recent developments, including but not limited to broadcast offerings on wireless phones, as well as services such as Qualcomm's proposed MediaFlo offering, highlight how the industry and its technology are in transition.

Several of the capabilities being investigated for a geographic-based service would require the industry to address issues including standardization (both of the underlying product as well as the alert development and delivery process), product development and deployment, as well as the need for handset turnover if the service is not available in existing handsets. In the interim, CTIA continues to work with FEMA on the creation of a framework for development of an alert service that ultimately can be transmitted on multiple retransmission media, including wireless. CTIA and the industry believe, however, that while wireless can be a component of any alerting service, any Emergency Alert service

should not focus solely on the wireless network, as the wireless networks are not currently designed to pass a message to all active subscribers simultaneously. Rather, an Emergency Alert service should utilize the full range of communications devices, such as wireline and wireless telephones, email and instant messaging systems, radios and television sets.

FEMA Capitol Region Pilot Project

CTIA has been working diligently with carriers, manufacturers, and FEMA on a digital Emergency Alert pilot project in the national capitol region. The pilot project, being directed by FEMA, coordinated with the Association of Public Television Stations ("APTS"), and utilizing the digital broadcast spectrum, is designed to provide the Nation with an enhanced alert system. The goal of the first phase of the project was a "proof of concept" that Emergency Alert messages can be sent from FEMA to public broadcasters, imbedded in the digital broadcast spectrum, and then re-transmitted to third parties, including wireless carriers. A portion of the imbedded Emergency Alert message contained a text file that the wireless carriers were able to extract. Phase 1 of the pilot project has successfully been completed.

As part of the second phase of the pilot project, FEMA, APTS, and the five nationwide wireless carriers that are participating in the project will now focus on making the service scaleable so that messages that are initiated by FEMA ultimately can be passed through directly to the wireless carriers' networks. To date, several of the carriers have successfully re-transmitted a test message to a small portion of their employee base. The goal is to ensure that a system is in place whereby a message can originate at FEMA, and be transmitted and retransmitted without ever being edited, touched, or handled by any of the participating companies. Ultimately, Phase II of the pilot project envisions that an Emergency Alert message will be retransmitted to some portion of the carriers' customer base.

As discussed above, the carriers, initially, will utilize their existing SMS capabilities to retransmit a text message to customers that opt-in to receive the alerts. Ultimately, carriers may use one of the other longer-term methods being considered to retransmit the message to a specific geographic location. Whatever method a company chooses to utilize for retransmission, the industry is looking forward to completion of an Emergency Alert *process* that ultimately can take advantage of any of the new capabilities or services that will emerge from this highly innovative industry.

AMBER Alerts

The industry already is pursuing use of the wireless phone for the safety of the country. On its own initiative, the industry has launched a Wireless AMBER Alert Service that will provide another level of safety to its customers and the American public. This service enhances the industry's vast array of socially responsible initiatives. Partnering with the National Center for Missing & Exploited Children ("NCMEC") as well as the Department of Justice (the designated national AMBER Alert coordinator), the wireless industry is making potentially life-saving AMBER Alert text messages available to wireless subscribers who "opt in" to the offering. The carriers currently participating collectively provide service to more than 90% of U.S. wireless customers. The service has been designed to be scaleable so that additional carriers can continue to join the effort going forward.

Wireless AMBER Alerts will significantly increase the reach of the AMBER Alert notification program. Past experiences indicate the first three hours are critical to the successful recovery of an abducted child, and the Wireless AMBER Alerts will be an invaluable tool in assisting the search process. According to the NCMEC, Wireless AMBER Alerts will potentially serve as a preventive tool as well. People who prey on innocent children will perhaps think twice before carrying out their malicious acts,

knowing that almost any cell phone owner they pass could identify a perpetrator and have access to the immediate means to guide law enforcement officials to their location.

Under the program, the subscribers of participating carriers may "opt-in" to receive Wireless AMBER Alerts, and may do so at www.wirelessAMBERalerts.org, or by visiting their wireless service provider's web site.

Going Forward

The efforts discussed above are only a part of the work being done in this area. More work needs to be completed, and, ultimately, government can help. A true government/industry partnership will facilitate development and deployment of the service. The wireless industry has in its immediate past an example of what can happen when government and industry partner voluntarily on the creation of a new service -- Wireless Priority Service. Wireless Priority Service is a White House-directed National Security/Emergency Preparedness program, through the National Communications System, that utilizes the commercial wireless networks to deliver priority access to key government officials during times of crisis and high call volume. Government, through both the National Communications System and the Federal Communications Commission, worked with industry on development of the requirements for the service, but did not mandate a solution. Instead, government has provided funding to manufacturers and vendors for development of the capability, resulting in rapid deployment of the service in two phases.

CTIA and the wireless industry believe that it is counter-productive to have a statutory mandate in this environment. Application of the Wireless Priority Service model of government/industry partnership will lead to a solution that takes advantage of the industry's creativity and ingenuity. As government and industry move forward with both a short-term and possibly longer-term solution, the following are some of the issues that would benefit from joint government/industry consideration:

- Liability relief. As with the Broadcasters that currently provide the Emergency Alert service, the industry requires full liability protection for delivery of any Emergency Alert message, both for any short-term solution and any longer-term solution.

- Service Description. A joint government/industry partnership to develop the requirements of any emergency alert service that ultimately would result in the development and adoption of standards. This partnership will allow manufacturers to build to specific requirements.

- Designation of Authority for Development of an Emergency Alert Service. Designation of a specific authority responsible for balancing local, state and federal requirements against industry capabilities.

- Designation of Authority for Operation of an Emergency Alert Service. Designation of a specific authority tasked with operation of the Emergency Alert service as well as creation of a clear set of rules governing who is permitted to generate messages and under what circumstances they can be generated, coupled with a process to authenticate and secure any Emergency Alert messages. Due to the possibility of a hoax transmission, this process must guarantee the integrity of the messages from the point of origination to delivery.

- Research, Development, Deployment and Implementation Support. The provision of funding to support research and development, as well as deployment and implementation, will benefit the establishment of a nationwide alert service.

Conclusion

CTIA and the industry look forward to continuing the partnership between government and industry toward development of an Emergency Alert service. Thank you again for this opportunity to discuss the wireless industry's efforts that could contribute to an all hazards network and what role the Government should play in that effort. We look forward to working with you and your staff toward a service that will benefit America.